A New Species of *Sigara* from California
(Corixidae, Hemiptera)

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In 1948, Hungerford listed two California localities, Onyx in Kern County and "Yuba County," for *Sigara alternata* (Say). The three specimens from Onyx and one male and female from the Yuba County series were borrowed from the Snow Entomological Museum at the University of Kansas. These specimens were compared with and found to be the same species as a series of 30 specimens from five additional localities in the Central Valley of California. Although the species described herein resembles *S. alternata* (Say) in some respects it is more closely related to *S. mckinstryi* Hungerford and represents a new species apparently confined to the Central Valley of California. This species is described as follows:

Sigara vallis Lauck, new species

Size.—Range of total lengths: ♂♂, 5.3–6.0 mm; ♀♀, 5.6–6.2 mm. Range of widths of heads across eyes: ♂♂, 1.6–1.9 mm; ♀♀, 1.8–2.1 mm. Holotype: 6.0 mm long; 1.8 mm wide across the eyes. Allotype: 6.2 mm long; 2.0 mm wide across the eyes.

Color.—Light yellow to yellowish brown; marked with darker brown, often reddish-tinged, bands on the pronotum and hemelytra. Pronotum with 8–10, rarely broken, transverse bands about equal in width to the lighter intervening areas. Hemelytral pattern (Fig. 1) with 17–22 fairly regular transverse bands on the clavus; corial bands zigzag, irregular, and often forming an indistinct longitudinal stripe along the margin and short submedial longitudinal stripe near the apices of the hemelytral commissures; bands between these stripes reticular but primarily transversely orientated; corium separated from membrane by a distinct light line devoid of banding; bands of the membrane narrow, reticular and often fading toward the apex. Venter of males usually darker, especially the abdomen.

Structural characteristics.—Head about half as long as pronotal disk; interocular space narrower than the width of eyes; ratio of interoculus to width of eyes varying from 1:1.11 to 1:1.15. Pronotum and clavus strongly rastrate; corium more moderately rastrate. Mesepimeron narrow (Fig. 15), about the same width at lateral bend as at the osteole of the scent gland; osteole about two-fifths the distance from the tip to the lateral bend. Male with 33–36 palar pegs (Fig. 13). Metaxyphus (Fig. 12) broader than long, ratio of width to length varying from 1:0.66 to 1:0.68. Abdominal strigil (Fig. 8) small, composed of four to five combs and attached to a long slender pedicle; seventh tergite (Fig. 8) produced caudally into a prominent obliquely trapezoidal projection. Right paramere of male (Fig. 4) bent at nearly a right angle about halfway toward the apex, apex abruptly narrowed to a minute fingerlike projection along caudal margin.

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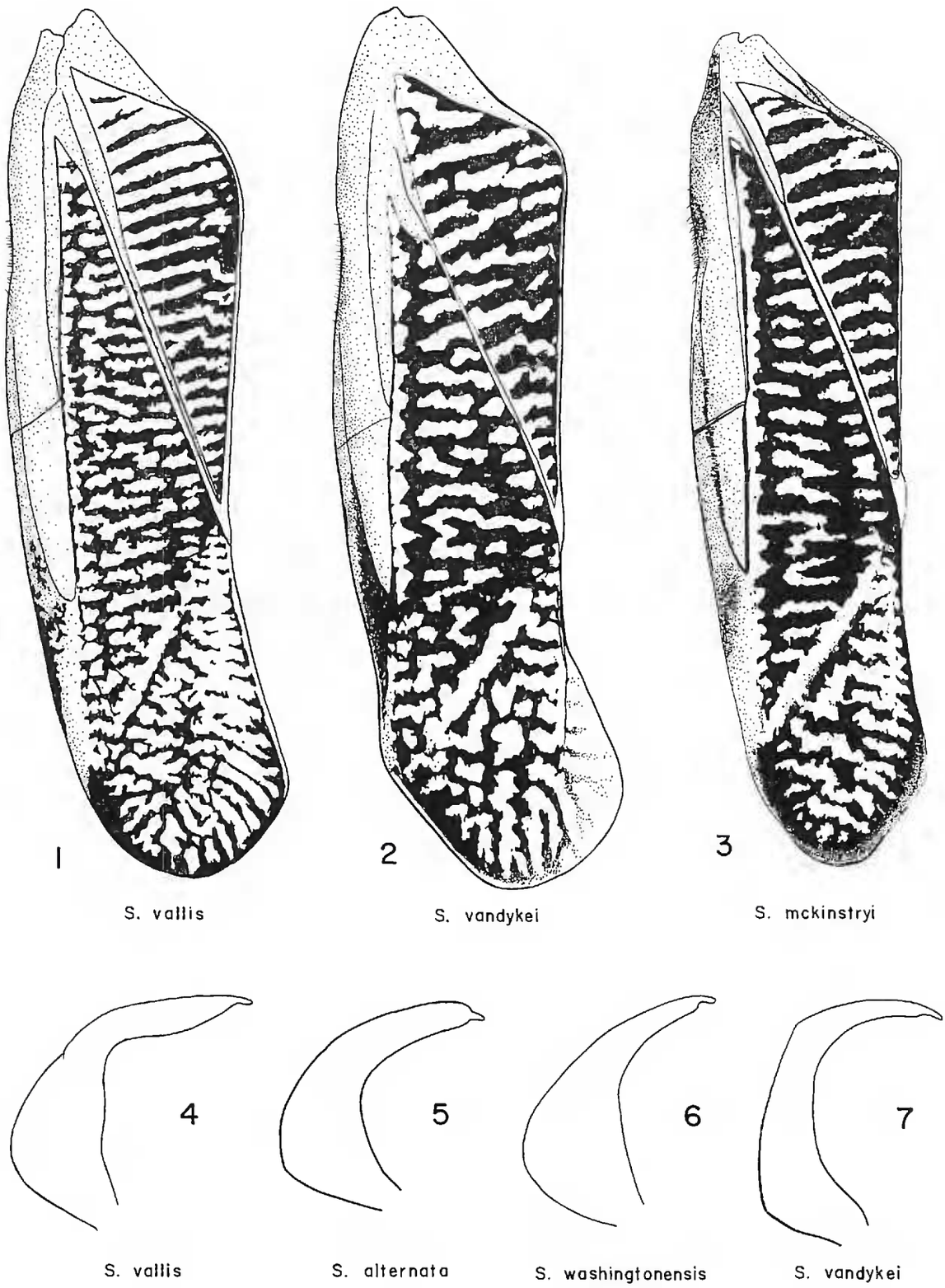
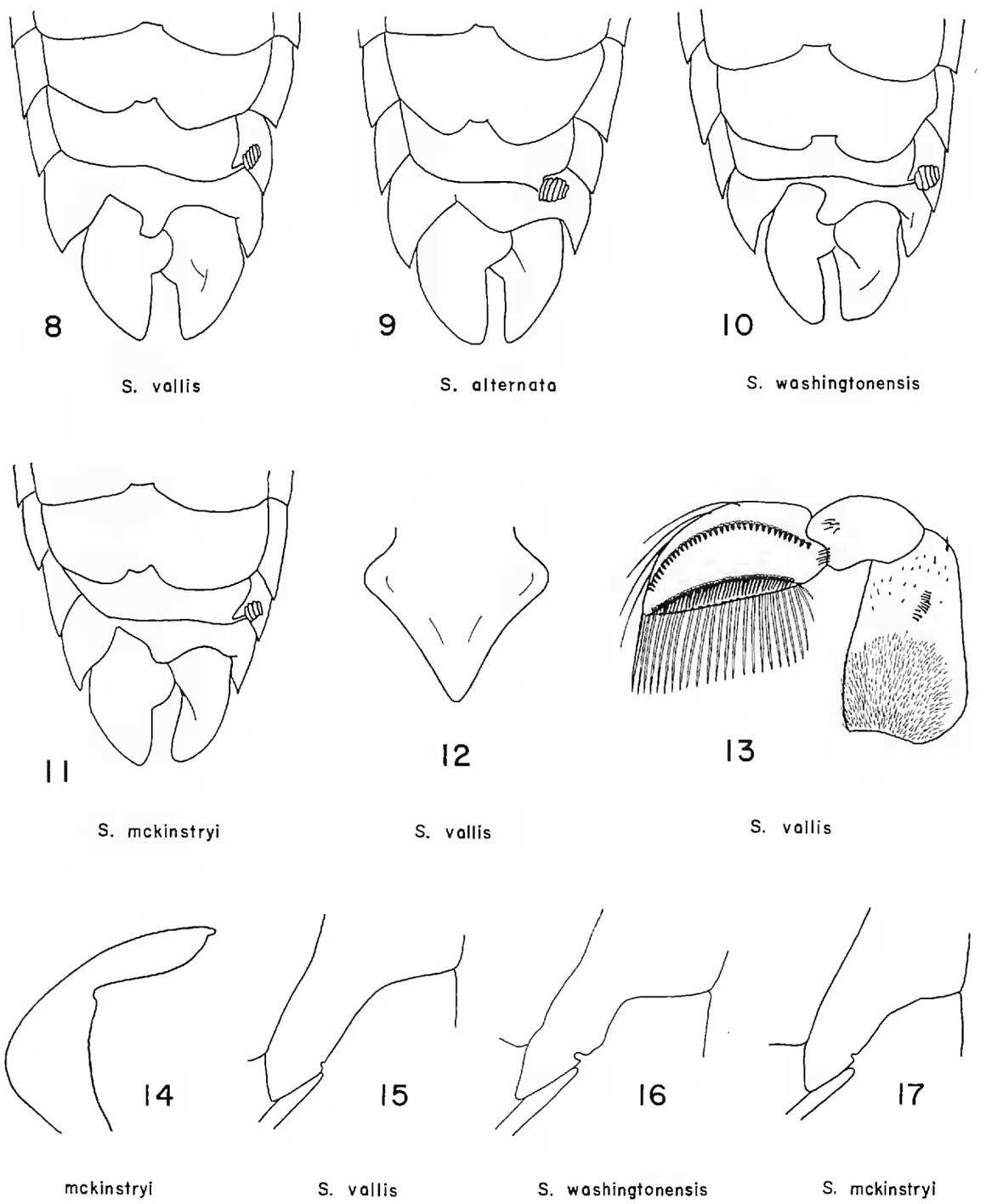


Figs. 1–3. Hemelytron of female. 1, *Sigara vallis* Lauck. 2, *S. vandykei* Hungerford. 3, *S. mckinstryi* Hungerford.

Figs. 4–7. Right paramere of male. 4, *S. vallis* Lauck. 5, *S. alternata* (Say). 6, *S. washingtonensis* Hungerford. 7, *S. vandykei* Hungerford.



Figs. 8–11. Dorsal view of abdomen. 8, *Sigara vallis* Lauck. 9, *S. alternata* (Say). 10, *S. washingtonensis* Hungerford. 11, *S. mckinstryi* Hungerford. 12, *S. vallis* Lauck, metaxyphus. 13, *S. vallis* Lauck, pala of male. 14, *S. mckinstryi* Hungerford, right paramere of male. 15, *S. vallis* Lauck, mesepimeron. 16, *S. washingtonensis* Hungerford, mesepimeron. 17, *S. mckinstryi* Hungerford, mesepimeron.

COMPARATIVE NOTES.—The hemelytral pattern is similar to *Sigara alternata* (Say), *S. washingtonensis* Hungerford, and *S. vandykei* Hungerford, while the right paramere of *S. vallis* Lauck is almost identical with that of *S. mckinstryi* Hungerford. *S. vallis* differs from *S. alternata* by having the fingerlike projection more caudally located (compare Figs. 4 and 5), by the smaller strigil and more prominently projecting seventh abdominal tergite (compare Figs. 8 and 9). *S. vallis* differs from *S. washingtonensis* by the shape of the right paramere (compare Figs. 8 and 10), by the narrower mesepimeron with a more apical osteole (compare Figs. 15 and 16), and by having the projection of the seventh abdominal sternite more truncate (compare Figs. 8 and 10). *S. vallis* is easily separated from *S. vandykei* by the shape of the right paramere of the male (compare Figs. 4 and 7) and in the case of females by lacking a hemelytral protuberance along the margin of the membrance (compare Figs. 1 and 2). *S. vallis* is probably most closely related to *S. mckinstryi.* The right paramere of male *S. mckinstryi* (Fig. 14) is almost identical to that of *S. vallis* (Fig. 4). *S. mckinstryi* has fewer and broader bands on the hemelytra (compare Figs. 1 and 3) and has a slightly broader mesepimeron with the osteole located almost midway between the tip and lateral bend (compare Figs. 15 and 17). The projection of the seventh abdominal tergite (compare Figs. 8 and 11) is also less prominent in *S. mckinstryi.*

DISTRIBUTION.—*Sigara vallis* is known only from the Central Valley of California. Records of no other species of *Sigara*, except for a single locality for *S. mckinstryi* from Davis, California, have been confirmed from the Central Valley area. All other California species of *Sigara* are confined to the mountains or are coastal in distribution. *S. vallis* has been recorded from the following localities:

Butte Co.: Orville, ♂, ♀ (Calif. Insect Survey, Kern Co.: Bakersfield, ♂ (Calif. Insect Survey), Onyx, ♂, 2♀♀ (Univ. Kansas). Merced Co.: Dos Palos, 2♂♂, 3♀♀ (Calif. Insect Survey). Sacramento Co.: Sacramento, 7♂♂, 10♀♀ (Calif. Insect Survey). Tulare Co.: 2♂♂, 2♀♀ (including ♂ holotype and ♀ allotype) (Calif. Insect Survey). Yuba Co.: ♂, ♀ (Univ. Kansas).

TYPES.—The *male holotype* is labeled, "EXETER, CALIF. TULARE CO., VIII–24–1938," "J. K. Elleworth Collector" and is deposited in the collection of the California Insect Survey at the University of California, Berkeley. The female allotype has the same data as the labels of the holotype and is deposited with the holotype. All other specimens listed in the distribution records above are designated as paratypes and are placed in either the collections of the California Insect Survey or the University of Kansas as indicated.

I wish to thank J. A. Powell and R. I. Usinger, University of California, and G. W. Byers, University of Kansas, for the loan of specimens contributing to the description of this new species.

LITERATURE CITED

HUNGERFORD, H. B. 1948. The Corixidae of the Western Hemisphere (Hemiptera). University of Kansas Science Bulletin, 32: 1–827.

A New Species of *Allochthonius* from the Pacific Northwest of North America

(Arachnida : Chelonethida)

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A widespread and rarely collected species of pseudoscorpion, belonging in the tribe Pseudotyrannochthoniini Beier, occurs in California, Idaho, and Oregon. This species is placed in the genus *Allochthonius* Chamberlin (1929), although a few comments seem necessary to justify such a placement.

In 1929 Chamberlin described *Allochthonius*, with *Chthonius opticus* Ellingsen as the orthotype, in the tribe *Chthoniini.* Chamberlin (1962) reassigned *Allochthonius* to the tribe Pseudotyrannochthoniini without indicating its relationship to the other genera. In Hoff's (1951) key to the tribe Pseudotyrannochthoniini, *Allochthonius* stops at couplet 3. Since the coxal spines are not simple, *Allochthonius* appears to differ from *Centrochthonius* Beier; and as the spines are not inserted individually, progress in the key is halted. The simple apices of the coxal spines attributed to *Centrochthonius* are atypical of the tribe and, if the observation is correct, that genus is truly distinctive. Interpretation of the nature of the coxal spines (with or without a common base) is more subjective, and this interpretation bears on whether the North American species should be placed in *Allochthonius* or in *Tubbichthonius* Hoff.

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Figs. 1–5. *Allochthonius incognitus* Schuster, new species. 1, chela; 2, carapace; 3, male genital area (setae of anterior and posterior opercula omitted from right side) ; 4, coxal spines of pedal coxa I; 5, intercoxal tubercle.

Figs. 6–8. *Allochthonius shintoisticus* Chamberlin, holotype female. 6, chela; 7, coxal spines; 8, intercoxal tubercle.

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